



## **Federal Highway Administration**

### **23 CFR Part 625**

**Docket No. FHWA-2019-0030**

**RIN 2125-AF88**

### **Design Standards for Highways**

**AGENCY:** Federal Highway Administration (FHWA), U.S. Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** FHWA amends its regulations governing design standards and standard specifications applicable to new construction, reconstruction, resurfacing (except for maintenance resurfacing), restoration, and rehabilitation projects on the National Highway System (NHS). In issuing this final rule, FHWA will allow State departments of transportation (State DOT) to adopt procedures or design criteria, as approved by FHWA, that enable the State to undertake resurfacing, restoration, and rehabilitation (RRR) projects on freeways, including Interstate highways, without utilizing design exceptions as long as the RRR procedures or criteria are met. In addition, FHWA incorporates by reference the latest versions of design standards and standard specifications previously adopted and incorporated by reference and removes from its regulations the corresponding outdated or superseded versions of these standards and specifications.

**DATES:** This final rule is effective February 2, 2022. Use of the updated standards is required for all NHS projects authorized to proceed with design activities on or after February 2, 2023, unless an extension is granted for unique or extenuating circumstances.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of February 2, 2022. The

incorporation by reference of certain other publications listed in the rule was approved by the Director of the Federal Register as of December 3, 2018.

**FOR FURTHER INFORMATION CONTACT:** Ms. Elizabeth Hilton, Office of Preconstruction, Construction and Pavements (HICP-10), (202) 924-8618, or via e-mail at [Elizabeth.Hilton@dot.gov](mailto:Elizabeth.Hilton@dot.gov), or Mr. Lev Gabrilovich, Office of the Chief Counsel (HCC-30), (202) 366-3813, or via e-mail at [Lev.Gabrilovich@dot.gov](mailto:Lev.Gabrilovich@dot.gov). Office hours are from 8 a.m. to 4:30 p.m., est., Monday through Friday, except Federal holidays.

**SUPPLEMENTARY INFORMATION:**

**Electronic Access and Filing**

This document, as well as the notice of proposed rulemaking (NPRM) and all comments received, may be viewed online through the Federal eRulemaking portal at [www.regulations.gov](http://www.regulations.gov) using the docket number listed above. Electronic retrieval help and guidelines are also available at [www.regulations.gov](http://www.regulations.gov). An electronic copy of this document may also be downloaded from the Office of the Federal Register's Website at [www.FederalRegister.gov](http://www.FederalRegister.gov) and the Government Publishing Office's Website at [www.GovInfo.gov](http://www.GovInfo.gov).

**Background and Legal Authority**

Pursuant to 23 U.S.C. 315 and under the authority delegated to FHWA in 49 CFR 1.85, FHWA is updating its existing regulations governing design standards for new construction, reconstruction, resurfacing (except for maintenance resurfacing), restoration, and rehabilitation projects on the NHS (including the Interstate System). This rulemaking is not expressly required by statute. However, this rulemaking is necessary to implement provisions of 23 U.S.C. 109 regarding design standards and criteria.

State DOTs are tasked with preserving the safety and usability of a vast network of existing highways. Past FHWA design standards required State DOTs to meet new

construction standards on freeway RRR projects unless a design exception was approved. Recent national research has provided a better understanding of the relationship between geometric design features and crash frequency and severity. Therefore, to improve the efficiency of developing RRR projects on existing freeways, this final rule allows State DOTs to adopt procedures or design criteria, as approved by FHWA, that enable the State to undertake RRR projects on freeways, including Interstate highways, without utilizing design exceptions as long as the RRR procedures or criteria are met. This final rule also incorporates by reference updated versions of design standards and standard specifications previously adopted and incorporated by reference under 23 CFR 625.4 and removes the corresponding outdated or superseded versions of these standards and specifications from the regulations.

Several of these design standards and standard specifications were established by the American Association of State Highway and Transportation Officials (AASHTO) and the American Welding Society (AWS) and were previously adopted by FHWA through rulemaking. 83 FR 54876 (November 1, 2018). The new standards or specifications replace the previous versions of these standards or specifications and represent recent refinements that professional organizations have formally accepted. In this final rule, FHWA formally adopts them as standards for NHS projects.

The revisions include adopting the 2018 edition of the AASHTO *A Policy on Geometric Design Highways and Streets* (Green Book); the AWS D1.1/D1.1M:2015 *Structural Welding Code – Steel*; the 2018 Interim Revisions to the AASHTO *Load and Resistance Factor Design (LRFD) Movable Highway Bridge Design Specifications*; the 2019 and 2020 Interim Revisions to the AASHTO *Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals*; and the 2019 and 2020 Interim Revisions to the AASHTO *LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals*. FHWA removes the incorporation by

reference of the AASHTO *Standard Specifications for Transportation Materials and Methods of Sampling and Testing* and the 2018 Interim Revisions to the AASHTO/AWS D1.5M/D1.5: 2015-AMD1, Bridge Welding Code.

The adopted standards and specifications apply to all projects on the NHS (including the Interstate System). FHWA encourages the use of flexibility and a context-sensitive approach to consider a full range of project and user needs and the impacts to the community and natural and human environment. These design standards provide a range of acceptable values for highway features, allowing for flexibility that best suits the desires of the community while satisfying the purpose for the project and needs of its users.

State DOTs and local agencies should select design values based on factors including the context of the facility, needs of all project users, safety, mobility, human and natural environmental impacts, and project costs. For most situations, there is sufficient flexibility within the range of acceptable values to achieve a balanced design. However, when this is not possible, a design exception may be appropriate. Since 1985, FHWA has designated the criteria that have the most impact on roadway safety and operations as “controlling criteria.” 81 FR 27187 (May 5, 2016). State and local agencies may consider designs that deviate from the design standards when warranted based on the conditions, context, and consequences of the proposed projects. FHWA encourages State DOTs and local agencies to document design decisionmaking, particularly when standards cannot be met. Additional information on FHWA’s adopted design standards and design exceptions is available at: <http://www.fhwa.dot.gov/design/standards>.

### **Statement of the Problem, Regulatory History and Next Steps**

FHWA published a NPRM on November 24, 2020 (85 FR 74934), seeking public comment on proposed revisions to its regulations at 23 CFR part 625 governing design

standards and standard specifications applicable to new construction, reconstruction, resurfacing (except for maintenance resurfacing), restoration, and rehabilitation projects on the NHS. Older versions of documents incorporated by reference needed to be updated, and more efficient procedures for the development of RRR projects on existing freeways are needed. FHWA also requested public comments and data on a draft economic analysis summarized in the preamble to the proposed rule. FHWA received 18 public comment submissions but no data related to the economic analysis. Commenters included several State DOTs, industry associations, associations of State and local officials, and individuals. After carefully considering the comments received in response to the NPRM, FHWA is promulgating final regulations with minor changes from the proposed regulatory text based on the comments received.

While FHWA is promulgating these final regulations, FHWA plans to consider additional updates to its design standards and standard specifications in order to ensure that these regulations reflect current best practices for new construction, reconstruction, resurfacing, restoration, and rehabilitation projects on different types of streets and roads on the NHS. For example, FHWA is considering whether additional documents should be incorporated by reference and whether the design standards should be revised to better facilitate the context-sensitive design of streets that safely serve all users. FHWA anticipates publishing a Notice and Request for Information to solicit public input on a range of questions related to making further changes to the Design Standards regulations at 23 CFR part 625.

#### **Discussion under 1 CFR Part 51**

The documents that FHWA is incorporating by reference are reasonably available to interested parties, primarily State DOTs and local agencies carrying out Federal-aid highway projects. These documents represent recent refinements that professional organizations have formally accepted. The documents are also available for review at

FHWA Headquarters (HQ) or may be obtained from AASHTO or AWS. The specific standards and specifications are summarized in this section of the preamble.

*AASHTO GDHS-7, A Policy on Geometric Design of Highways and Streets, 7th Edition, 2018*

This document, commonly called the “Green Book”, contains the current design research and practices for highway and street geometric design. This edition presents an updated framework for geometric design that is more flexible, multimodal, and performance-based than in the past. The document provides guidance to engineers and designers who strive to develop unique design solutions that meet the needs of all highway and street users on a project-by-project basis. The 2018 edition of the Green Book incorporates the latest research and current industry practices and is primarily applicable to new construction and reconstruction projects.

*AASHTO LRFD MOV-2-I7 Movable Highway Bridge Design Specifications, 2018 Interim Revisions for 2007 2nd Edition, copyright 2017*

This document contains interim revisions to the AASHTO *LRFD Movable Highway Bridge Design Specifications, Second Edition* (2007), which provides the specifications for the design of bascule span, swing span, and vertical lift bridges. The Interim Revisions contain changes to the provisions relating to span locks contained in Section 2: Structural Design, parts 2.4.1.2.5 and C2.4.1.2.5, and Section 6: Mechanical Design, parts 6.8.1.5.1 and C6.8.1.5.1.

*AASHTO LTS-6-I2-OL, 2019 Interim Revisions to (2013 Sixth Edition) Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, copyright 2018*

This document contains interim revisions to the AASHTO *Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, Sixth Edition* (2013), which provides the specifications for the design of

structural supports for highway signs, luminaires, and traffic signals. The Interim Revisions contain changes to Section 5: Steel Design regarding unreinforced holes and cutouts (part 5.14.6.1), reinforced holes and cutouts (part 5.14.6.2), as well as mast-arm-to-pole connections (parts 5.14.7 and C5.14.7). It also contains changes to Section 11: Fatigue Design regarding stress range (part 11.9.2).

*AASHTO LTS-6-I3, 2020 Interim Revisions to (2013 Sixth Edition) Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, copyright 2019*

This document contains interim revisions to the AASHTO *Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, Sixth Edition* (2013). The Interim Revisions contain changes to the weld inspection provisions contained in Section 5: Steel Design, parts 5.15.5 and C5.15.5. *AASHTO LRFDLTS-1-I3-OL, 2019 Interim Revisions to (2015 First Edition) LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, copyright 2018*

This document contains interim revisions to the AASHTO *LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals* which provides the specifications for the design of structural supports for highway signs, luminaires, and traffic signals using Load and Resistance Factor Design. The Interim Revisions contain changes to the provisions contained in Section 5: Steel Design regarding unreinforced and reinforced holes and cutouts (part 5.6.6.1) and mast-arm-to-pole connections (part 5.6.7). It also contains changes to Section 11: Fatigue Design regarding stress range (part 11.9.2).

*AASHTO LRFDLTS-1-I4, 2020 Interim Revisions to (2015 First Edition) LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, copyright 2019*

This document contains interim revisions to the AASHTO *LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals*. The Interim Revisions contain changes to the discussion of ice loads presented in part C3.7 of Section 3: Loads. It also contains changes to the weld inspection provisions contained in Section 14: Fabrication, Materials and Detailing, parts 14.4.4.8 and C14.4.4.8.

*AWS D1.1/D1.1M:2015 Structural Welding Code – Steel, 23<sup>rd</sup> Edition, copyright 2015, including Errata March 2016 (second printing)*

This code contains the requirements for fabricating and erecting welded steel structures. The code includes basic information on the scope and limitations of the code, key definitions, and the major responsibilities of the parties involved with steel fabrication. It includes requirements for the design of welded connections composed of tubular, or nontubular, product form members. It contains the performance qualification tests required to be passed by all welding personnel (welders, welding operators, and tack welders) to perform welding in accordance with this code. It also includes general fabrication and erection requirements applicable to welded steel structures governed by this code, including the requirements for base metals, welding consumables, welding technique, welded details, material preparation and assembly, workmanship, weld repair, and requirements for the welding of studs to structural steel. It contains criteria for the qualifications and responsibilities of inspectors, acceptance criteria for production welds, and standard procedures for performing visual inspection and nondestructive testing (NDT). It also includes basic information pertinent to the welded modification or repair of existing steel structures.

*AASHTO/AWS D1.5M/D1.5: 2015-AMD1, Bridge Welding Code, 7<sup>th</sup> Edition,*  
*Amendment: December 12, 2016*

This code covers welding fabrication requirements applicable to welded steel highway bridges. The code is applicable to both shop and field fabrication of steel



bridges and bridge components. The code is to be used in conjunction with the AASHTO LRFD Bridge Design Specifications.

### **Section-by-Section Discussion of Changes to 23 CFR Part 625**

This section of the preamble discusses the changes to 23 CFR part 625 that FHWA is making in this final rule. For each section, FHWA describes the final rule, explains how, if at all, it differs from the proposed change described in the NPRM, and states the reasons for any changes from the proposal.

Consistent with the proposed regulatory text contained in the November 24, 2020, NPRM, FHWA is revising 23 CFR 625.2(b), 625.3(a)(1), and 625.4(a)(3) to allow States to adopt procedures or design criteria, as approved by FHWA, that would enable the State to undertake RRR work on all NHS roadways without utilizing design exceptions as long as the RRR procedures or criteria are met. Under 23 U.S.C. 109(a), the Secretary must ensure proposed highway projects are designed and constructed in accordance with criteria best suited to serve adequately the existing and planned future traffic of the highway in a manner that is conducive to safety, durability, and economy of maintenance. National research, such as that incorporated in the AASHTO *Highway Safety Manual* ([www.highwaysafetymanual.org](http://www.highwaysafetymanual.org)), has provided a better understanding of the relationship between geometric design features and crash frequency and severity. As a result, the practice of roadway design is changing to a more performance-based, flexible approach, particularly for RRR projects. This performance-based approach has been advanced under several research projects conducted by the National Cooperative Highway Research Program (NCHRP) as documented in NCHRP Report 839: A Performance-Based Highway Geometric Design Process (<http://www.trb.org/Publications/Blurbs/175375.aspx>), NCHRP Report 785: Performance-Based Analysis of Geometric Design of Highways and Streets (<http://www.trb.org/Publications/Blurbs/171431.aspx>), and NCHRP Report 876:

Guidelines for Integrating Safety and Cost-Effectiveness into Resurfacing, Restoration, and Rehabilitation (3R) Projects (<http://www.trb.org/Main/Blurbs/177914.aspx>). Rather than focusing solely on meeting dimensional design criteria, RRR projects can be developed based on project-specific conditions and existing and expected future roadway performance. State DOTs can make the best use of limited resources by developing RRR projects on all classes of roadways, including freeways, to maximize the safety and operational benefit of the overall transportation network.

Consistent with the proposed regulatory text, FHWA is revising § 625.3(a)(1) in accordance with 23 U.S.C. 109(c)(1), as amended by section 1404(a) of the 2015 Fixing America's Surface Transportation (FAST) Act (Pub. L. 114-94).<sup>1</sup> Revisions to § 625.3(a)(1) include changing the factors to be considered by design and construction standards for highways on the NHS from optional to mandatory consideration, and the addition of a new factor to consider – the cost savings that can be achieved by utilizing flexibility that exists in current design guidance and regulations.

Consistent with the proposed regulatory text, FHWA is adding new paragraph (a)(3) to § 625.3 to incorporate a long-standing exception to the Interstate design standards for Alaska and Puerto Rico, found in 23 U.S.C. 103(c)(1)(B)(ii).

Consistent with the proposed regulatory text, FHWA is adding new paragraph (a)(4) to § 625.3 to incorporate the provisions of FAST Act section 1404(b) that allow, if certain conditions are met, a local jurisdiction that is a direct recipient of Federal funds to design a project using a roadway design publication that is different from the roadway design publication used by the State in which the local jurisdiction resides. One of the statutory requirements is that the roadway design publication must be recognized by

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<sup>1</sup> Under 23 U.S.C. 109(c)(1), design and construction standards for highways on the NHS shall consider the constructed and natural environment of the area; the environmental, scenic, aesthetic, historic, community, and preservation impacts of the activity; cost savings by utilizing flexibility that exists in current design guidance and regulations; and access for other modes of transportation.

FHWA. For the purpose of implementing section 1404(b), the design publications that FHWA currently recognizes are those listed in either the FHWA Memorandum dated August 20, 2013, regarding Bicycle and Pedestrian Facility Design Flexibility (available at [www.fhwa.dot.gov/environment/bicycle\\_pedestrian/guidance/design\\_flexibility.cfm](http://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/design_flexibility.cfm)) or the related Questions and Answers (Q&As) (available at [www.fhwa.dot.gov/environment/bicycle\\_pedestrian/guidance/design\\_flexibility\\_qa.cfm](http://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/design_flexibility_qa.cfm)).

Changes to the proposed regulatory text were made to add “to use”, which was inadvertently omitted from the proposed regulatory text in 23 CFR 625.3(f)(2). FHWA establishes, in paragraph (f)(2) as redesignated, a process allowing a programmatic exception for the limited purpose of allowing States to use a more recent edition of a standard or specification adopted in § 625.4(d). A programmatic exception, if approved by FHWA, would enable a State to adopt a more recent refinement to a standard or specification than FHWA has incorporated by reference in its regulations. FHWA retains approval for such a programmatic exception at the appropriate HQs program office to ensure that the Agency is satisfied that interim implementation of a new edition is in the public interest. In addition, consistent with the proposed regulatory text, FHWA is revising § 625.3(f)(1)(i), as redesignated, to clarify that the provisions governing project exceptions only apply to projects on the NHS because States may develop their own standards for projects not on the NHS under § 625.3(a)(2) and 23 U.S.C. 109(o).

As discussed below, in § 625.4, FHWA is incorporating by reference the updated versions of design standards and standard specifications previously adopted and incorporated by reference, and removing the corresponding outdated or superseded versions of these standards and specifications. In addition, FHWA is removing one previously adopted specification and adding one new specification.

Consistent with the proposed regulatory text, in § 625.4(a)(1), FHWA is removing the edition and date from the AASHTO *A Policy on Geometric Design Highways and*

*Streets* because the edition and date are more properly included in paragraph (d)(1)(i) of this section.

Consistent with the proposed regulatory text, in § 625.4(a)(3), FHWA is focusing on statewide procedures and design criteria because under risk-based stewardship and oversight, design plans for individual RRR projects are typically delegated to the State. In addition, FHWA clarifies that consistent with current practice, if a State does not adopt design procedures or criteria for RRR projects as approved by FHWA, the geometric standards listed in paragraphs (a)(1) and (2) shall apply.

Changes to the proposed regulatory text were made based on comments received pertaining to § 625.4(b)(6). For consistency with other citations in this section, FHWA is inserting “AWS” in front of the name of the referenced document and removing the edition and date because they are more properly included in referenced paragraph (d) of this section.

Consistent with the proposed regulatory text, in § 625.4(b)(7), FHWA is inserting “AASHTO” in front of the name of the two documents incorporated by reference for clarity.

Consistent with the proposed regulatory text, in § 625.4(b)(9) and § 625.4(d)(2)(i), FHWA is incorporating a new reference to the AWS D1.1/D1.1M:2015 *Structural Welding Code – Steel* because many projects require welding of miscellaneous metal components for items such as light poles, sign supports, and railings. FHWA adopts minimum design standards to ensure the safety of the transportation infrastructure by ensuring all fabrication and manufacturing processes are performed to an acceptable standard. For instance, the AASHTO/AWS D1.5/D1.5M *Bridge Welding Code* is a minimum standard to ensure all steel bridges are welded to a standard that covers welding consumables, welding procedure requirements, qualification requirements, personal requirements, inspection and acceptance criteria. However, numerous transportation

products are not covered by the *Bridge Welding Code* including light poles, high mast towers, sign structures, guard rail systems, and even pedestrian bridges. Because these other product types are not covered by the *Bridge Welding Code*, and because they are in or over the right-of-way, they should be fabricated or manufactured to a minimum design standard, and FHWA adopts the AWS D1.1/D1.1M:2015 *Structural Welding Code – Steel*.

Consistent with the proposed regulatory text, in § 625.4(c)(2) and (d)(1)(x), FHWA is deleting the reference to the AASHTO *Standard Specifications for Transportation Materials and Methods of Sampling and Testing* (described as “Transportation Materials” in the existing regulatory text). This AASHTO publication covers a broad range of material specifications and testing procedures. While these standards represent effective, nationally recognized practices, adherence to these standards is not mandatory in all circumstances. Removal of these standards from the incorporation by reference is meant to clarify that use of these standards is not a mandatory requirement as a design standard for highways covered in part 625. Some of these material specifications and testing procedures remain individually incorporated by reference in regulations found in other parts of this title.

Changes to the proposed regulatory text were made based on a comment received pertaining to § 625.4(d)(1). FHWA is updating the address and contact information for AASHTO to “American Association of State Highway and Transportation Officials (AASHTO), 555 12th Street NW, Suite 1000, Washington, DC 20004, 1-800-231-3475, <https://store.transportation.org>.”.

Consistent with the proposed regulatory text, in § 625.4(d)(1)(i), FHWA is adopting the 2018 edition of the AASHTO publication, *A Policy on Geometric Design Highways and Streets* (Green Book), replacing the 2011 edition. The 2018 Green Book supports efforts to develop Complete Streets

(<https://www.transportation.gov/mission/health/complete-streets>) by emphasizing the need to utilize a flexible design approach to balance the needs of all users and modes of travel. It expands project context categories from two to five—adding rural town, suburban, and urban core to the previous contexts of urban and rural. While the 2018 Green Book is the adopted standard for NHS highways, public entities may wish to also reference other documents to inform the planning and design process, such as the *Urban Street Design Guide* published by the National Association of City Transportation Officials, the AASHTO *Guide for the Planning, Design, and Operation of Pedestrian Facilities* and *Guide for the Development of Bicycle Facilities*, and the Institute of Transportation Engineers *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach*. These and other publications can support public entities in developing transportation projects that incorporate safe and convenient walking and bicycling facilities. Such projects improve safety for all modes, create more equitable access to transportation, and combat climate change.<sup>2</sup>

The 2018 Green Book also better describes the various types of projects—new construction, reconstruction, and projects on existing roads where the basic road type is unchanged—and provides design flexibility for each project type. This third project type is similar to what historically have been referred to as RRR projects. FHWA continues to use the term RRR in part 625 to be consistent with language in title 23 of the U.S.C. Although AASHTO does not define the phrase “change in basic road type,” FHWA generally interprets this phrase to include projects that change the general geometric character of a highway, such as widening to provide additional through motor vehicle lanes, widening to add a raised or depressed median where none currently exists, and projects that substantially modify horizontal or vertical alignments. Road changes that

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<sup>2</sup> See Expand and Improve Bicycle and Pedestrian Infrastructure, *available at* <https://www.transportation.gov/mission/health/Expand-and-Improve-Bicycle-and-Pedestrian-Infrastructure>,

are accomplished with no, or only minimal, widening, such as lane reconfigurations (road diets), adding turn lanes, adding channelizing islands, or adding median curbs for access management are not considered a “change in the basic road type.” See 85 FR at 74937. In addition, for the purposes of determining geometric design criteria when applying the 2018 Green Book, full-depth pavement replacement projects that retain existing geometrics are not considered a “change in the basic road type.” The 2018 Green Book favors a performance-based approach for considering the effects of geometric design decisions. Under a performance-based design approach, the scope of geometric improvements for projects on existing roads that retain the existing basic road type should be driven by past safety and operational performance and predicted future performance for all modes of transportation. Consistent with 23 U.S.C. 109(n), RRR projects must preserve and extend the service life of the existing road and enhance highway safety.

Consistent with the proposed regulatory text, in § 625.4(d)(1)(vi), FHWA is incorporating by reference the 2018 Interim Revisions to the AASHTO *LRFD Movable Highway Bridge Design Specifications*. These standards are applicable to the design of bridge spans, mechanical systems (motors, hydraulics, etc.), electrical systems, and bridge protection systems for movable highway bridges. Changes in the 2018 Interim Revisions reflect the latest research, developments, and specifications promulgated by AASHTO and include important updates to the provisions for the mechanical and structural design requirements for span lock devices.

Changes to the proposed regulatory text were made to relocate the incorporation by reference of AASHTO/AWS D1.5M/D1.5 *Bridge Welding Code* from § 625.4(d)(1)(vii) to (d)(2)(iii). While reviewing a comment suggesting incorporating by reference the 2020 edition of AASHTO/AWS D1.5M/D1.5 *Bridge Welding Code*, FHWA found that while the 2020 edition was available on the AWS website, it was not

available on the AASHTO website. It has since been posted to the AASHTO website. Because updates of the full document, which are generally published every 5 years, are available from the AWS Bookstore, FHWA is reserving § 625.4(d)(1)(vii) for future use and moving the incorporation by reference of the AASHTO/AWS D1.5M/D1.5 *Bridge Welding Code* to § 625.4(d)(2)(iii). Consistent with the proposed regulatory text, FHWA is deleting the 2018 Interim Revisions to the AASHTO/AWS D1.5M/D1.5: 2015-AMD1, *Bridge Welding Code*, previously adopted in § 625.4(d)(1)(vii)(A). This interim revision was provided by AASHTO to owners and fabricators for informational purposes only to alert them to proposed revisions to the AASHTO/AWS D1.5M/D1.5:2015 *Bridge Welding Code*. The interim revisions can be used, but FHWA is not retaining them as a minimum design standard.

Consistent with the proposed regulatory text, in § 625.4(d)(1)(viii), FHWA is incorporating the 2019 and 2020 Interim Revisions to the AASHTO *Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals*. In § 625.4(d)(1)(ix), FHWA is incorporating the 2019 and 2020 Interim Revisions to the AASHTO *LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals*. These standards are applicable to the structural design of supports for highway signs, luminaires, and traffic signals. They are intended to serve as a standard and guide for the design, fabrication, and erection of these types of supports. Changes in the 2019 and 2020 Interim Revisions to both publications reflect the latest research, developments, and specifications promulgated by AASHTO and address items such as providing updated dimensional and detailing requirements for certain support connections to control fatigue and providing updated requirements on the testing of welds in certain connections.



Use of the updated standards is required for all NHS projects authorized to proceed with design activities on or after one year following the effective date of the final rule, unless an extension is granted for unique or extenuating circumstances.

### **Discussion of Comments Received in Response to the NPRM**

FHWA received 18 public comments in response to the NPRM. Commenters included several State DOTs, industry associations, associations of State and local officials, and individuals. The following summarizes the comments received and FHWA's responses to the most significant issues raised in the comments.

#### *Comment*

FHWA received general comments on the NPRM that do not concern specific provisions of the rule. Four State DOTs, the American Council of Engineering Companies, the National Association of Small Trucking Companies, and the American Road & Transportation Builders Association expressed general support for the regulatory changes.

#### *Response*

FHWA appreciates the comment.

#### *Comment*

The Delaware DOT expressed support for incorporating by reference the updated documents as proposed. They asked FHWA to consider eliminating the requirement for standards regarding RRR projects on the NHS.

#### *Response*

Under 23 U.S.C. 109(a), the Secretary must ensure proposed highway projects are designed and constructed in accordance with criteria best suited to serve adequately the existing and planned future traffic of the highway in a manner that is conducive to safety, durability, and economy of maintenance. FHWA has determined that standards for RRR projects on the NHS are necessary to implement this statutory requirement as well as the

statutory requirement for design criteria for the NHS under 23 U.S.C. 109(c) and Congress's intent that any project for resurfacing, restoring, or rehabilitating any highway, other than a highway access to which is fully controlled, in which Federal funds participate shall be constructed in accordance with standards to preserve and extend the service life of highways and enhance highway safety, as identified in 23 U.S.C. 109(n).

*Comment*

The Missouri DOT asked for clarification on the meaning of the text in § 625.3(a)(1) that reads "shall be those approved by the Secretary in cooperation with the State DOTs."

*Response*

The cited text mirrors the statutory language found in 23 U.S.C. 109(b) and (c)(2). The text means that the standards adopted by FHWA are developed in conjunction with the State DOTs. Many of the standards adopted by FHWA are AASHTO publications that are approved by the State DOTs through a balloting process. AASHTO does not publish RRR criteria but States may adopt State RRR standards for use on the NHS under 23 CFR 625.4(a)(3), subject to FHWA approval. In this case, FHWA works directly with individual States.

*Comment*

The Missouri DOT also suggested that the adoption of the latest Interim Revisions for structural supports for highway signs, luminaires, and traffic signals in § 625.4(d)(1)(viii)(B) and (C) and (d)(1)(ix)(C) and (D) is not necessary because updating their standards systemically is time and cost prohibitive, especially when failures of poles, mast arms, etc. are not as catastrophic as a bridge failure. They believe they have sufficient procedures in place for routine maintenance and in-service inspections to prevent eminent structural failures.

*Response*

General provisions to control fatigue in the design of ancillary highway structures were first incorporated by reference into 23 CFR part 625 in 2015 (80 FR 61307). The interim revisions adopted here do not substantially affect the fatigue design provisions already incorporated by reference, and therefore FHWA does not expect these updates to be time or cost prohibitive compared to previous requirements. No change was made to the final regulatory text.

*Comment*

The American Society of Civil Engineers (ASCE) expressed general support for the changes and encouraged additional discussion of 23 CFR 625.3(a)(4) which is conditioned, in part, on whether “the local jurisdiction is a direct recipient of federal funds for the project.” ASCE notes that confusion may arise on projects that utilize multiple funding sources and asks whether this provision applies only to projects that solely rely on Federal funds, or if it includes projects where Federal funds account for a portion of the funding required.

*Response*

Section 1404(b) of the FAST Act provides local jurisdictions with additional flexibility in the choice of design standards for specific projects. Under section 1404(b), a State may allow a local jurisdiction to design the project using a roadway design publication that is different from the roadway design publication used by the State in which the local jurisdiction resides if the following requirements are met: 1) The local jurisdiction is a direct recipient of Federal funds for the project; 2) the design publication is adopted by the local jurisdiction and recognized by FHWA; 3) the design(s) complies with all applicable Federal laws and regulations; and 4) projects applying the design publication are on a roadway owned by the local jurisdiction and not on the Interstate System. For section 1404(b) of the FAST Act to apply, the entity must receive any Federal funds directly, such as through a Federal grant (e.g. RAISE), not as a pass-

through from another entity. The project may also utilize non-Federal funds, but any Federal funds must be received directly.

*Comment*

The National Association of City Transportation Officials (NACTO) submitted comments on behalf of NACTO, the National League of Cities (NLC), the National Association of Counties (NACo), the Association of Metropolitan Planning Organizations (AMPO), the American Public Works Association (APWA), and the National Association of Regional Councils (NARC). They asked FHWA to replace "may" with "shall" in § 625.3(a)(4), in an effort to strengthen the directive to States to defer to recognized, adopted city design guidance on non-Interstate, locally-owned, directly-Federally-funded projects. They also requested that language be added allowing this provision to also apply when local jurisdictions receive Federal funds as a subrecipient from a State.

*Response*

The requested changes are inconsistent with the statutory language contained in the FAST Act. Congress specifically provided States with the option—rather than a requirement—to allow local jurisdictions that are direct recipients of Federal funds for a project to use a publication other than the one used by the State. Congress also limited this flexibility to local jurisdictions that are direct recipients of Federal funds for the project. Therefore, the requested changes have not been made in the final regulatory text.

*Comment*

AASHTO expressed general support for the proposed changes while requesting a few specific changes.

Regarding § 625.4(b), AASHTO referenced comments submitted in March 2020 regarding the National Bridge Inspection Standards NPRM (Federal Docket No. FHWA-2017-0047), recommending that the Manual for Bridge Evaluation and the Manual for

Bridge Element Inspection be removed from their current location in § 650.317 and added to § 625.4(b). AASHTO recommends this change, noting that [part] 625 is updated more frequently than [part] 650 and relocating these two references would allow for States to use the most current edition earlier.

*Response*

Since the documents incorporated by reference in 23 CFR part 650 describe processes related to the inspection and evaluation of in-service bridges, rather than structural design, their incorporation into 23 CFR part 625 would be inconsistent with the purpose of the Design Standards regulation, as stated in § 625.1, which is “To designate those standards, policies, and standard specifications that are acceptable to the Federal Highway Administration (FHWA) for application in the geometric and structural design of highways.” No change was made in the final regulatory text.

*Comment*

Regarding § 625.5(b)(9), AASHTO supports the addition of AWS D1.1/D1.1M Structural Welding Code – Steel to the list of acceptable design standards. They recommended the addition of language stating that if there is a conflict between D1.1 or D1.4 and the AASHTO/AWS D1.5M/D1.5 Bridge Welding Code that the Bridge Welding Code take precedence.

*Response*

The purpose of the Design Standards regulation is to designate acceptable design standards and it is not intended to function like a contractual vehicle that would set out an order of precedence. Other standards incorporated by reference into 23 CFR part 625, such as the AASHTO LRFD Bridge Construction Specifications, appropriately provide direction on where each AWS specification is applicable. No change was made in the final regulatory text.

*Comment*

Regarding § 625.4(d)(1), AASHTO requested that the contact information for AASHTO be changed to “American Association of State Highway and Transportation Officials (AASHTO), 555 12th Street NW, Suite 1000, Washington, DC 20004, 1-800-231-3475, <https://store.transportation.org>.”

*Response*

The revised contact information has been incorporated in the final regulatory text.

*Comment*

The Minnesota DOT requested that the regulation be modified to allow for a process by which a DOT could request a programmatic exception to the design standards adopted for the NHS, primarily the AASHTO *A Policy on Geometric Design of Highways and Streets* (Green Book), subject to FHWA approval.

*Response*

With respect to design criteria for new construction and reconstruction projects, FHWA adopts standards such as the Green Book based on the results of the AASHTO committee process as described in 23 U.S.C. 109(c)(2)(A). The AASHTO committees develop design criteria with input from transportation officials across the country and play an important role in vetting new research and determining what to include in national criteria. The AASHTO balloting process ensures that publications issued by AASHTO are supported by a majority of State DOTs. FHWA intends to continue following this process without individual State programmatic exceptions to deviate from these standards. The allowance to develop State RRR standards for all roadway classifications should eliminate the need for many project design exceptions. No change was made in the final regulatory text.

*Comment*

The American Concrete Pavement Association (ACPA) recommended that § 625.3(a)(1)(iii) focus on the use of life-cycle cost analysis by modifying the text to read

“Life-cycle cost savings by utilizing flexibility that exists in current design guidance and regulations; and”.

*Response*

The language for § 625.3(a)(1)(iii) matches the statutory text found in 23 U.S.C. 109(c)(1)(C). The statutory language does not preclude using life-cycle cost analysis. FHWA does not intend to limit the statutory language regarding cost savings to life-cycle cost savings. No change was made in the final regulatory text.

*Comment*

One individual recommended against the proposed changes in favor of retaining the existing framework to ensure consistency in design of the Interstate System, with continued allowance for States to request design exceptions when standards cannot be met.

*Response*

The AASHTO Interstate Standards, adopted in 23 CFR 625.4(d)(1)(ii), have long allowed RRR projects to use the standard in place at the time of original construction or incorporation into the Interstate System, so FHWA does not anticipate the final rule to substantially effect project design on the Interstate System. No change was made to the final regulatory text.

*Comment*

Another individual requested the following changes to the design standards and standard specifications incorporated by reference in § 625.4:

1. Reorganize paragraphs (a)(4) through (7) by part number.
2. Revise paragraph (b)(6) to be consistent with rest of paragraph and reference the full standard title.
3. Revise paragraphs (d)(1)(v) and (vii) and (d)(2)(i) to reference the 2020 editions of referenced standards.

4. Revise redesignated paragraph (d)(2)(ii) to reference the 2018 edition of the AWS D1.4/D1.4M *Structural Welding Code – Steel Reinforcing Bars*.

#### *Response*

Responses to the above comments are provided in the same order:

1. Paragraphs (a)(4) through (7) will not be rearranged to avoid creating cross-reference problems from other parts of the CFR and from other documents.

2. FHWA agrees with this suggestion and has revised the final regulatory text.

3. The 2020 publications were released during development of the NPRM.

Since FHWA did not propose to adopt them in the NPRM, FHWA will not adopt the new versions at this time but will consider them for adoption in a future rulemaking. No changes in editions were made to the final regulatory text. However, FHWA is reserving § 625.4(d)(1)(vii) for future use and moving the incorporation of the AASHTO/AWS D1.5M/D1.5 *Bridge Welding Code* to § 625.4(d)(2)(iii) because updates of the full document, which are generally published every 5 years, are available from the AWS Bookstore.

4. The 2018 edition of the AWS D1.4/D1.4M *Structural Welding Code – Steel Reinforcing Bars* will be considered in a future rulemaking since FHWA did not propose to adopt it in the NPRM. No change was made to the final regulatory text.

#### **Rulemaking Analyses and Notices**

**Executive Order 12866 (Regulatory Planning and Review), Executive Order 13563**

**(Improving Regulation and Regulatory Review), and DOT Rulemaking Policies and Procedures**



The Office of Management and Budget (OMB) has not designated this rule a significant regulatory action under section 3(f) of Executive Order (E.O.) 12866. Accordingly, OMB has not reviewed it. This action complies with E.O.s 12866 and 13563 to improve regulation. The amendments allow the development of RRR procedures or design criteria for projects on freeways, update several industry design standards and standard specifications adopted and incorporated by reference under 23 CFR part 625, and remove the corresponding outdated or superseded versions of these standards and specifications. FHWA anticipates that the rule does not adversely affect, in a material way, any sector of the economy. In addition, the rule does not interfere with any action taken or planned by another agency and does not materially alter the budgetary impact of any entitlements, grants, user fees, or loan programs. The rule also does not raise any novel legal or policy issues.

The following is a summary of the results of the economic analysis for this rule. The preamble of the NPRM contained FHWA's economic analysis and invited public comment. No comments were received regarding the economic analysis or economic impact of this rulemaking. FHWA anticipates that the economic impact of this rulemaking is minimal. Based on project data captured in FHWA's Fiscal Management Information System from October 2014 to September 2018, FHWA estimates that an average of 685 projects (totaling \$18.5 billion) per year, will be eligible to be designed to State-specific RRR standards. FHWA does not have data to determine how many of the 685 projects per year do not meet the new construction standard through the implementation of design exceptions, nor does FHWA have data to demonstrate how many hours State DOTs spend developing design exception requests on freeway projects undertaken to perform RRR-type work. FHWA requested that State DOTs provide comments to the docket if they had any data that would be relevant to this analysis. Specifically, FHWA sought data on (1) the percentage of RRR-type freeway projects

developed by State DOTs that utilized a design exception because the project could not meet a new construction standard, (2) the average number of employee hours spent developing, reviewing, and approving each design exception, (3) the average hourly compensation of employees involved with these design exception activities, (4) reasons for requesting exceptions (operational, safety, resource constraint, innovation, etc.), and (5) cost savings associated with the proposed design exception. No data was received in response to this request.

Most State DOTs already have staff dedicated to developing RRR standards for non-freeway projects, and any additional staff time needed to develop RRR standards for freeways is anticipated to be minimal. The NCHRP released Research Report 876 entitled “Guidelines for Integrating Safety and Cost-Effectiveness into Resurfacing, Restoration, and Rehabilitation (3R) Projects,” which provides guidance and assistance to States for developing these standards. See <http://www.trb.org/NCHRP/Blurbs/177914.aspx>. When this final rule is implemented, the resulting design of the freeway project is anticipated to be the same, but FHWA expects that net cost savings will be realized by allowing the States to develop their own standards and eliminate the need for many design exceptions.

FHWA does not anticipate any cost or safety impacts due to removing the *AASHTO Standard Specifications for Transportation Materials and Methods of Sampling and Testing* from the list of standards incorporated by reference. Nor does FHWA anticipate any cost or safety impacts due to incorporating by reference the AWS D1.1/D1.1M:2015 *Structural Welding Code – Steel*, as most States are already using this standard for the welding of miscellaneous structural steel items. FHWA anticipates that the economic impact of updating several industry design standards and standard specifications adopted and incorporated by reference is minimal. These updated

standards and specifications represent recent refinements that professional organizations have formally accepted and are widely used for projects off the NHS.

For these reasons, FHWA finds that the expected economic benefits of the final rule will outweigh the estimated costs of the final rule. FHWA anticipates that the economic impact of this rulemaking will be minimal; therefore, a full regulatory evaluation is not necessary.

### **Regulatory Flexibility Act**

In compliance with the Regulatory Flexibility Act (Pub. L. 96-354; 5 U.S.C. 601-612), FHWA has evaluated the effects of this rule on small entities, such as local governments and businesses. Based on the evaluation, FHWA has determined that this action is not anticipated to have a significant economic impact on a substantial number of small entities. The amendments update several industry design standards and standard specifications adopted and incorporated by reference under 23 CFR part 625. FHWA has determined that the projected impact upon small entities that utilize Federal-aid highway program funding for the development of highway improvement projects on the NHS is expected to be negligible. Therefore, FHWA certifies that the action will not have a significant economic impact on a substantial number of small entities.

### **Unfunded Mandates Reform Act of 1995**

FHWA has determined that this rule does not impose unfunded mandates as defined by the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4, 109 Stat. 48). The actions in this final rule will not result in the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector, of \$155 million or more in any one year (2 U.S.C. 1532). In addition, the definition of “Federal Mandate” in the Unfunded Mandates Reform Act excludes financial assistance of the type in which State, local, or Tribal governments have authority to adjust their participation in the program in

accordance with changes made in the program by the Federal Government. The Federal-aid highway program permits this type of flexibility.

#### **Executive Order 13132 (Federalism Assessment)**

FHWA has analyzed this final rule in accordance with the principles and criteria contained in E.O. 13132. FHWA has determined that this action does not have sufficient federalism implications to warrant the preparation of a federalism assessment. FHWA has also determined that this action does not preempt any State law or State regulation or affect the States' ability to discharge traditional State governmental functions.

#### **Executive Order 12372 (Intergovernmental Review)**

The regulations implementing E.O. 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program. This E.O. applies because State and local governments are directly affected by the regulation, which is a condition on Federal highway funding. Local entities should refer to the Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction, for further information.

#### **Paperwork Reduction Act**

Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501, *et seq.*), Federal agencies must obtain approval from the Office of Management and Budget for each collection of information they conduct, sponsor, or require through regulations. FHWA has determined that this final rule does not contain collection of information requirements for the purposes of the PRA.

#### **National Environmental Policy Act**

FHWA has analyzed this final rule for the purposes of the National Environmental Policy Act (NEPA) (42 U.S.C. 4321, *et seq.*) and has determined that this action does not have any effect on the quality of the human and natural environment because it only makes technical changes and incorporates by reference the latest versions of design

standards and standard specifications previously adopted and incorporated by reference under 23 CFR part 625 and removes the corresponding outdated or superseded versions of these standards and specifications. The final rule qualifies as a categorical exclusion to NEPA under 23 CFR 771.117(c)(20), which applies to the promulgation of regulations, and no unusual circumstances under 23 CFR 771.117(b) are present.

#### **Executive Order 13175 (Tribal Consultation)**

FHWA has analyzed this final rule under E.O. 13175 and anticipates that it will not have substantial direct effects on one or more Indian Tribes, will not impose substantial direct compliance costs on Indian Tribal governments, and will not preempt Tribal law. This final rule will not impose any direct compliance requirements on Indian Tribal governments nor will it have any economic or other impacts on the viability of Indian Tribes. Therefore, a Tribal summary impact statement is not required.

#### **Executive Order 12898 (Environmental Justice)**

E.O. 12898 requires that each Federal Agency make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minorities and low-income populations. FHWA has determined that this final rule does not raise any environmental justice issues.

#### **Regulation Identifier Number**

A Regulation Identifier Number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in the spring and fall of each year. The RIN number contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

#### **List of Subjects in 23 CFR part 625**

Design standards, Grant programs-transportation, Highways and roads,  
Incorporation by reference.

Issued under authority delegated in 49 CFR 1.85 on:

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Stephanie Pollack  
Deputy Administrator  
Federal Highway Administration

In consideration of the foregoing, FHWA amends 23 CFR part 625 as follows:

**PART 625—DESIGN STANDARDS FOR HIGHWAYS**

1. Revise the authority citation for part 625 to read as follows:

**Authority:** 23 U.S.C. 103, 109, 315, and 402; Sec. 1073 of Pub. L. 102-240, 105 Stat. 1914, 2012; Sec. 1404 of Pub. L. 114-94, 129 Stat. 1312; 49 CFR 1.85.

2. Amend § 625.2 by revising the first sentence of paragraph (b) to read as follows:

**§ 625.2 Policy.**

\* \* \* \* \*

(b) Resurfacing, restoration, and rehabilitation (RRR) projects shall be constructed in accordance with standards that preserve and extend the service life of highways and enhance highway safety. \* \* \*

\* \* \* \* \*

3. Amend § 625.3 by:

a. Revising and republishing paragraph (a);

b. Adding subject headings to paragraphs (b) through (e); and

c. Revising and republishing paragraph (f).

The revisions and additions read as follows:

**§ 625.3 Application.**

(a) *Applicable standards.*(1) Design and construction standards for new construction, reconstruction, resurfacing (except for maintenance resurfacing), restoration, or rehabilitation of a highway on the NHS shall be those approved by the Secretary in cooperation with the State DOTs. These standards must consider, in addition to the criteria described in §625.2(a), the following:

(i) The constructed and natural environment of the area;

(ii) The environmental, scenic, aesthetic, historic, community, and preservation impacts of the activity;

(iii) Cost savings by utilizing flexibility that exists in current design guidance and regulations; and

(iv) Access for other modes of transportation.

(2) Federal-aid projects not on the NHS are to be designed, constructed, operated, and maintained in accordance with State laws, regulations, directives, safety standards, design standards, and construction standards.

(3) Interstate highways located in Alaska and Puerto Rico shall be designed in accordance with such geometric and construction standards as are adequate for current and probable future traffic demands and the needs of the locality of the highway.

(4) A State may allow a local jurisdiction to design a project using a roadway design publication that is different from the roadway design publication used by the State in which the local jurisdiction resides if—

(i) The local jurisdiction is a direct recipient of Federal funds for the project;

(ii) The roadway design publication is adopted by the local jurisdiction and recognized by FHWA;

(iii) The design complies with all applicable Federal laws and regulations; and

(iv) The project is located on a roadway that is owned by the local jurisdiction and is not part of the Interstate System.

(b) *Deviations from specific minimum values on the NHS.* \* \* \*

\* \* \* \* \*

(c) *Application of other FHWA regulations.* \* \* \*

\* \* \* \* \*

\* \* \* \* \*

(d) *Funding source.* \* \* \*

\* \* \* \* \*

(e) *Very minor or no roadway work.* \* \* \*

\* \* \* \* \*

(f) *Exceptions—(1) Project exception.* (i) Approval within the delegated authority provided by FHWA Order M1100.1A may be given on a project basis to designs on the NHS which do not conform to the minimum criteria as set forth in the standards, policies, and standard specifications for:

(A) Experimental features on projects; and

(B) Projects where conditions warrant that exceptions be made.

(ii) The determination to approve a project design that does not conform to the minimum criteria is to be made only after due consideration is given to all project conditions such as maximum service and safety benefits for the dollar invested, compatibility with adjacent sections of roadway and the probable time before reconstruction of the section due to increased traffic demands or changed conditions.

(2) *Programmatic exception.* Approval within the delegated authority provided by FHWA Order M1100.1A may be given, on a programmatic basis, to use a more recent edition of any standard or specification incorporated by reference under § 625.4(d).



4. Amend § 625.4 by:

- a. Revising paragraphs (a)(1) and (3) and (b)(6) and (7);
- b. Adding paragraph (b)(9);
- c. Revising paragraph (c);
- d. Revising the last sentence in the paragraph (d) introductory text;
- e. Revising and republishing paragraphs (d)(1) and (2); and
- f. Adding a subject heading to paragraph (e).

The revision and additions read as follows:

**§ 625.4 Standards, policies, and standard specifications.**

(a) \* \* \*

(1) A Policy on Geometric Design of Highways and Streets, AASHTO  
(incorporated by reference; see paragraph (d) of this section).

\* \* \* \* \*

(3) The geometric design standards for resurfacing, restoration, and rehabilitation (RRR) projects on NHS highways shall be the procedures or the design criteria established for individual projects, groups of projects, or all RRR projects in a State, and as approved by FHWA. The RRR design standards shall reflect the consideration of the traffic, safety, economic, physical, community, and environmental needs of the projects. If a State does not adopt design procedures or criteria for RRR projects as approved by FHWA, the standards listed in paragraphs (a)(1) and (2) shall apply.

\* \* \* \* \*

(b) \* \* \*

(6) AWS D1.4/D1.4M Structural Welding Code –Reinforcing Steel (paragraph (d) of this section).

(7) AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, (paragraph (d) of this section); or AASHTO LRFD

Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals (paragraph (d) of this section).

\* \* \* \* \*

(9) AWS D1.1/D1.1M Structural Welding Code – Steel (paragraph (d) of this section).

(c) *Materials*. (1) General Materials Requirements, refer to 23 CFR part 635, subpart D.

(2) Quality Assurance Procedures for Construction, refer to 23 CFR part 637, subpart B.

(d) \* \* \* For information on the availability of this material at NARA, email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov) or go to [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

(1) American Association of State Highway and Transportation Officials (AASHTO), 555 12th Street NW, Suite 1000, Washington, DC 20004, 1-800-231-3475, <https://store.transportation.org>.

(i) AASHTO GDHS-7, A Policy on Geometric Design of Highways and Streets, 7th Edition, 2018.

(ii) A Policy on Design Standards - Interstate System, May 2016.

(iii) Standard Specifications for Highway Bridges, 17th Edition, 2002

(iv) AASHTO-LRFD Bridge Construction Specifications, 4th Edition, copyright 2017.

(v) AASHTO LRFD-8, LRFD Bridge Design Specifications, 8th Edition, 2017.

(vi) AASHTO LRFD Movable Highway Bridge Design Specifications, 2nd Edition, 2007, with:

(A) Interim Revisions, 2008,

(B) Interim Revisions, 2010,

- (C) Interim Revisions, 2011,
- (D) Interim Revisions, 2012,
- (E) Interim Revisions, 2014,
- (F) Interim Revisions, 2015, and
- (G) Interim Revisions, 2018.

(vii) [Reserved]

(viii) AASHTO LTS-6, Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 6th Edition, copyright 2013, with:

(A) AASHTO LTS-6-I1, 2015 Interim Revisions to Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, copyright 2014,

(B) AASHTO LTS-6-I2-OL, 2019 Interim Revisions to Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, copyright 2018, and

(C) AASHTO LTS-6-I3, 2020 Interim Revisions to Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, copyright 2019.

(ix) AASHTO LRFDLTS-1, LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 1st Edition, copyright 2015, with:

(A) AASHTO LRFDLTS-1-I1-OL, 2017 Interim Revisions to LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, copyright 2016,

(B) AASHTO LRFDLTS-1-I2-OL, 2018 Interim Revisions to LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, copyright 2017,

(C) AASHTO LRFDLTS-1-I3-OL, 2019 Interim Revisions to LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, copyright 2018, and

(D) AASHTO LRFDLTS-1-I4, 2020 Interim Revisions to LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, copyright 2019.

(2) American Welding Society (AWS), 8669 NW 36 Street, #130 Miami, FL 33166-6672; *www.aws.org*; or (800) 443-9353 or (305) 443-9353.

(i) AWS D1.1/D1.1M:2015 Structural Welding Code – Steel, 23rd Edition, copyright 2015, including Errata March 2016 (second printing).

(ii) AWS D1.4/D1.4M:2011 Structural Welding Code –Reinforcing Steel, 2011.

(iii) AASHTO/AWS D1.5M/D1.5: 2015-AMD1, Bridge Welding Code, 7<sup>th</sup> Edition, Amendment: December 12, 2016.

(e) *Additional design resources.* \* \* \*

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